Electronic Version
Stylesheet Version v1.1.1

[AUTOMATED KNOWLEDGE SYSTEM FOR EQUIPTMENT REPAIR BASED ON COMPONENT FAILURE HISTORY]

Abstract

The invention presents a computerized method for tracking equipment repair that begins by receiving an equipment identification of an item of equipment to be repaired from a user through a graphic user interface. The invention provides the user with a list of common problems for that item of equipment (and similar equipment) and a component hierarchy for the item of equipment. The invention allows the user to browse through multiple levels of the component hierarchy and select a major component, a minor component, or a subcomponent from the component hierarchy. The invention receives diagnosis input from the user optionally selecting one of the problems and/or a component from the component hierarchy and, in response, provides the user with detailed information regarding the problem or component selected by the user. Such detailed information comprises, for each direct subcomponent of the selected component (highest level if none selected), the number of failures, the probability of failure, the mean

time between failures, the occurrence of the most recent failure for each component and the next expected failure, etc. Successful prior repairs for the same problem/component are presented including tool, date, time, technician, components involved and action taken. These successful repairs are linked to textual comments regarding the repair. Comments made for what is later determined to be an ineffectual repair are linked to the subsequent successful repair information.